

# CROPS/AGRONOMY

The Agronomy Career Development Event (CDE) challenges students to build and demonstrate knowledge in the wide field of agronomy. Participation grants student's exposure to many ways that science and technology collaborate to grow the world's major food crops.

Teams of five students in this event evaluate a agronomic scenario and develop a crop management plan that includes crop selection, production, problem-solving and marketing. Individually, the team members also complete an agronomic knowledge exam, identify and analyze plant and soil types, evaluate commodity quality, demonstrate pest management and equipment knowledge, and discuss an agronomic issue important to crop production.

Students in this event demonstrate an understanding of sustainable agriculture and environmental stewardship while learning the fundamentals of the many fields that holistically come together to successfully produce field crops.

## **RULES AND REGULATIONS**

1. The score of the 4 high individuals will be used to determine the team score.

## **DIVISION OF THE CROPS CDE**

### 1. *Even Years (based on the date of the event)*

A. Seed Analysis (2 samples)	15 min.	200 points
B. Weed Identification (20 samples)	15 min.	200 points
C. Crop Identification (20 samples)	15 min.	200 points
D. Hay Judging (2 classes)	15 min.	180 points
E. Silage Judging (2 classes)	15 min.	180 points
F. Vegetable Judging (2 classes)	15 min.	180 points
G. Fruit and Nut Judging (2 classes)	15 min.	190 points
H. General Knowledge Test (40 questions)	30 min.	<u>200</u> points

**Total Points 1530**

### 2. *Odd Years (based on the date of the event)*

A. Seed Analysis (2 samples)	15 min.	200 points
B. Weed Identification (20 samples)	15 min.	200 points
C. Crop Identification (20 samples)	15 min.	200 points
D. Hay Judging (2 classes)	15 min.	180 points
E. Silage Judging (2 classes)	15 min.	180 points
F. Insect Identification (18 samples)	15 min.	180 points
G. Grain Judging (2 classes) labeled	15 min.	200 points
H. General Knowledge Test (40 questions)	30 min.	<u>200</u> points

**Total Points 1540**

## **DETAILS OF CDE DIVISION**

### **A. Seed Analysis**

1. Time - 15 minutes (two samples totaling 200 points)
2. The two samples will be selected from the following three crop areas: (a) Cereals - 25 gram samples (wheat, barley, oats); (b) Legumes - 5 gram samples (alfalfa, red clover, white clover); (c) Grasses - 2 gram samples (perennial ryegrass, orchardgrass, crested wheatgrass).
3. The contestant must provide common names on the base crop, other crop seeds, and weed seeds.
4. A contestant shall not name a seed as a contaminant unless there are more than three seeds of the contaminant present in the base sample (this is to account for seed which may occur incidentally in the sample).
5. Scoring of the seed analysis shall be 100 points per sample as follows: 10 points for each base crop properly identified, other crop and weed contaminants up to 9 for a total of 100 points. No points are subtracted for improper identification.
6. Contaminants added to the base samples shall come from both the crop and weed identification lists; however, the following mixtures will not occur:
  - a. Hard red and soft white wheat
  - b. Six and two row barley
  - c. Perennial ryegrass and tall fescue
  - d. Alfalfa and red clover
  - e. Alfalfa and sweet clover
  - f. Red clover and sweet clover
  - g. Crested wheatgrass and quackgrass
  - h. Crested wheatgrass and orchardgrass
  - i. White clover and ladino clover
  - j. Timothy and velvetgrass
  - k. Kentucky bluegrass and annual bluegrass
  - l. Perennial ryegrass and annual ryegrass
  - m. Creeping red fescue and crested wheatgrass

### **B. Weed Identification**

1. Time - 15 minutes (200 points).
2. Twenty (20) samples will be selected and displayed for each CDE.
3. Contestants will identify each sample and place the appropriate sample number in front of the correct common name listed on the scorecard.
4. The plants exhibited must be in flower and/or fruiting stages unless otherwise specified. Seedling stages will not be allowed.
5. Each sample will be worth 10 points.

### **C. Crop Identification**

1. Time - 15 minutes (200 points).
2. Twenty (20) samples will be selected and displayed for each CDE.
3. Contestants will identify each sample and place the appropriate sample number in front of the correct common name listed on the scorecard.
4. The plants exhibited must be in flower and/or fruiting stages unless otherwise specified. Seedling stages will not be allowed.
5. Each sample will be worth 10 points.

#### D. Hay Judging

1. Time - 15 minutes (two classes totaling 180 points).
2. Two classes consisting of four samples of hay will be selected and displayed. Each sample will have one or more factors that influence quality. The samples may be bale or flakes of baled hay. The two classes will be legume hay, grass hay, or other.
3. The contestant must place the four samples of hay based upon the following factors: maturity, leafiness, color, foreign material, and odor/condition.
4. Specimen evaluation will consist of one individual sample to be evaluated. Evaluation will be based upon the factors as listed on the appropriate scorecard.
5. 50 points will be allotted for correct placing of each class using the Hormel system. Eight (8) points will be allotted for determining the desirability of each factor for the designated samples, for a total of 40 points possible. Each class will then have a total value of 90 points.

#### E. Silage Judging

1. Time - 15 minutes (two classes totaling 180 points).
2. Two classes consisting of four samples of silage will be selected and displayed. Each sample will have one or more factors that influence quality. The two classes will be either legume, grass (including corn), or legume grass mixture.
3. The contestant must place the four samples of silage based upon the following factors: Maturity, color, foreign materials, odor/condition, moisture, and chop.
4. Specimen evaluation will consist of one individual sample to be evaluated. Evaluation will be based upon the factors as listed on the appropriate scorecard.
5. 50 points will be allotted for correct placing of each class using the Hormel system. Eight (8) points will be allotted for determining the desirability of each factor for the designated samples for a total of 40 points possible. Each class will then have a total value of 90 points.

#### F. Vegetable Judging

1. Time - 15 minutes (two classes totaling 180 points).
2. Each class will consist of four samples with four specimens to a sample that will be placed in accordance to their quality. At least one of the samples will be either potatoes or onions. The other class will be taken from the list of vegetables. The contestant must place the four samples of vegetables based upon color, maturity, size/shape/variety, uniformity, disease, mechanical damage, rot/spoilage/freezing, and foreign material/stem/leaves and insect/rodent damage.
3. Specimen evaluation will consist of one individual sample to be evaluated. Evaluation will be based upon the factors as listed on the appropriate scorecard.
4. All specimens within a class will consist of the same variety.
5. Scoring of a class shall be on the basis of 50 points for correct placing using the Hormel system. Five (5) points will be allotted for determining the desirability of each factor for the designated samples for a total of 40 points possible. Each class will then have a total of 90 points.
6. All samples will be placed in a position such that all qualities and conditions can be seen without turning them over.

#### G. Fruit and Nut Judging

1. Time - 15 minutes (two classes totaling 190 points).
2. Each class will consist of four samples with four specimens to a sample that will be placed in accordance to their quality. Fruit and nut specimens to be judged will be selected from the following:

Apples	Blackberries	Filberts
Pears	Raspberries	Walnuts
Strawberries		

The contestant will place the four samples of fruits or nuts based upon color, maturity, size/shape/varietal trueness, disease, mechanical damage, rot/spillage/freezing, foreign material/stem/leaves, insect/rodent damage and uniformity.

3. Specimen evaluation will consist of one individual sample to be evaluated. Evaluation will be based upon the factors as listed on the appropriate scorecard.
4. All specimens within a class will consist of the same variety.
5. Scoring of a class shall be on the basis of 50 points for correct placing using the Hormel system. Five (5) points will be allotted for determining the desirability of each factor for the designated samples for a total of 45 points possible. Each class will then have a total of 95 points.
6. All samples will be placed in a position that all qualities and conditions can be seen without turning them over.
7. Samples that are free of any defects shall be called good.

#### H. Insect Identification

1. Time - 15 minutes (180 points).
2. Eighteen (18) samples will be selected for each CDE from the list of insects provided on page titled "Insect Identification List."
3. Contestants will identify each sample and place the appropriate sample number in front of the correct common name listed on the scorecard.
4. The insect pictures exhibited must be in either the adult or larval stages unless otherwise specified.
5. Each sample will be worth 10 points.

#### I. Grain Judging

1. Time - 15 minutes (two classes totaling 180 points).
2. Each class will consist of four 100-gram samples that will be placed in accordance to their quality.
3. All samples will consist of the same variety.
4. The grain judging classes may consist of wheat, barley, oats, rye or grain corn.
5. Samples will be labeled as livestock feed, seed or milling for human consumption.
6. Specimen evaluation will consist of one individual sample to be evaluated. Evaluation will be based upon the factors as listed on the appropriate scorecard.
7. The scoring will be based on 50 points for correct placing of the class using the Hormel system. Ten (10) points will be allotted for determining the desirability of each factor for the designated samples, for a total of 50 points possible. Each class will then have a total of 100 points.

J. General Knowledge Test

1. Time - 30 minutes (40 questions with a point value of 5 points per question, totaling 200 points).
2. Questions will test basic knowledge relative to the production and marketing of crops (plant growth and development, seedbed preparation, tillage and cultivation, pest management, irrigation and fertilization, harvesting, crop quality, and marketing).
3. Questions will be taken from the last three years of national tests.

K. Determining the Degree of Desirability for Specimen Evaluation

1. Desirable: Those specimens excelling in grading and marketing quality standards.
2. Acceptable: Those specimens meeting the minimal grading and marketing quality standards.
3. Undesirable: Those specimens having less than the minimal grading and marketing quality standards.

SEED ANALYSIS SCORECARD

Contestant No. \_\_\_\_\_

Score: \_\_\_\_\_

Sample No. \_\_\_\_\_

Base Crop \_\_\_\_\_ (10 pts.)

Other Crop Seeds (10 pts. each)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Weed Seeds (10 pts. each)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

TOTAL SCORE (100 pts. maximum) \_\_\_\_\_

## WEED IDENTIFICATION LIST

The following samples will be either plant or seed.

1. Annual bluegrass (Poa annua)
2. Barnyardgrass (Echinochloa crusgalli)
3. Broadleaf plantain (Plantago major)
4. Buckhorn plantain (Plantago lanceolata)
5. Bull thistle (Cirsium vulgare)
6. Canada thistle (Cirsium arvense)
7. Cheatgrass (Bromus secalinus)
8. Chinese lettuce (Lactuca serriola)
9. Cocklebur (Xanthium pensylvanicum)
10. Common lambsquarter (Chenopodium album)
11. Common chickweed (Stellaria media)
12. Common mullein (Verbascum thapsus)
13. Cow parsnip (Heracleum lanatum)
14. Crabgrass (Digitaria spp.)
15. Curlydock (Rumex crispus)
16. Common dandelion (Taraxacum officinale)
17. Dodder (Cuscuta pentagona)
18. Dog fennel (Anthemis cotula)
19. Eastern Oregon Cheatgrass (Bromus rigidus)
20. False dandelion (Hypochaeris radicata)
21. Field bindweed/Wild morning glory (Convolvulus arvensis)
22. Groundsel (Senecio vulgaris)
23. Horsetail (Equisetum arvense)
24. Jointed goatgrass (Aegilops cylindrica)
25. Kochia (Kochia scoparia)
26. Lupine (Lupinus spp.)
27. Mallow (Malva spp.)
28. Mare's tail (Urtica dioica)
29. Nettle (Urtica spp.)
30. Nightshade (Solanum spp.)
31. Perennial sowthistle (Sonchus arvensis)
32. Poison hemlock (Conium maculatum)
33. Prostrate knotweed (Polygonum aviculare)
34. Quackgrass (Agropyron repens)
35. Redroot pigweed (Amaranthus retroflexus)
36. Russian rapweed (Centaurea repens)
37. Russian thistle (Salsola kali)
38. Scotchbroom (Cytisus scoparius)
39. Sheep sorrel (Rumex acetosella)
40. Shepherd's purse (Capsella bursa-pastoris)
41. Skeleton weed (Chondrilla juncea)
42. St. Johnswort/Klamath weed (Hypericum perforatum)
43. Tansy ragwort (Senecio jacobaea)
44. Teasel (Dipsacus sylvestris)
45. Velvetgrass (Holcus spp.)
46. Western goldenrod (Solidago occidentalis)
47. Wild blackberry (Rubus laciniatus)
48. Wild carrot (Daucus carota)
49. Wild garlic/wild onion (Allium spp.)
50. Wild geranium (Geranium spp.)
51. Wild mustard (Brassica spp.)
52. Wild oats (Avena fatua)
53. Wild radish (Raphanus raphanistrum)
54. Yellow/green foxtail (Setaria glauca)
55. Yellow nutsedge (Cyperus esculentus)

## WEED IDENTIFICATION SCORECARD

- \_\_\_ 1. Annual bluegrass (Poa annua)
- \_\_\_ 2. Barnyardgrass (Echinochloa crusgalli)
- \_\_\_ 3. Broadleaf plantain (Plantago major)
- \_\_\_ 4. Buckhorn plantain (Plantago lanceolata)
- \_\_\_ 5. Bull thistle (Cirsium vulgare)
- \_\_\_ 6. Canada thistle (Cirsium arvense)
- \_\_\_ 7. Cheatgrass (Bromus secalinus)
- \_\_\_ 8. Chinese lettuce (Lactuca serriola)
- \_\_\_ 9. Cocklebur (Xanthium pensylvanicum)
- \_\_\_ 10. Common lambsquarter (Chenopodium album)
- \_\_\_ 11. Common chickweed (Stellaria media)
- \_\_\_ 12. Common mullein (Verbascum thapsus)
- \_\_\_ 13. Cow parsnip (Heracleum lanatum)
- \_\_\_ 14. Crabgrass (Digitaria spp.)
- \_\_\_ 15. Curlydock (Rumex crispus)
- \_\_\_ 16. Common dandelion (Taraxacum officinale)
- \_\_\_ 17. Dodder (Cuscuta pentagona)
- \_\_\_ 18. Dog fennel (Anthemis cotula)
- \_\_\_ 19. Eastern Oregon Cheatgrass (Bromus rigidus)
- \_\_\_ 20. False dandelion (Hypochaeris radicata)
- \_\_\_ 21. Field bindweed/Wild morning glory (Convolvulus arvensis)
- \_\_\_ 22. Groundsel (Senecio vulgaris)
- \_\_\_ 23. Horsetail (Equisetum arvense)
- \_\_\_ 24. Jointed goatgrass (Aegilops cylindrica)
- \_\_\_ 25. Kochia (Kochia scoparia)
- \_\_\_ 26. Lupine (Lupinus spp.)
- \_\_\_ 27. Mallow (Malva spp.)
- \_\_\_ 28. Mare's tail (Urtica dioica)
- \_\_\_ 29. Nettle (Urtica spp.)
- \_\_\_ 30. Nightshade (Solanum spp.)
- \_\_\_ 31. Perennial sowthistle (Sonchus arvensis)
- \_\_\_ 32. Poison hemlock (Conium maculatum)
- \_\_\_ 33. Prostrate knotweed (Polygonum aviculare)
- \_\_\_ 34. Quackgrass (Agropyron repens)
- \_\_\_ 35. Redroot pigweed (Amaranthus retroflexus)
- \_\_\_ 36. Russian napweed (Centaurea repens)
- \_\_\_ 37. Russian thistle (Salsola kali)
- \_\_\_ 38. Scotchbroom (Cytisus scoparius)
- \_\_\_ 39. Sheep sorrel (Rumex acetosella)
- \_\_\_ 40. Shepherd's purse (Capsella bursa-pastoris)
- \_\_\_ 41. Skeleton weed (Chondrilla juncea)
- \_\_\_ 42. St Johnswort/Klamath weed (Hyperacum perforatum)
- \_\_\_ 43. Tansy ragwort (Senecio jacobaea)
- \_\_\_ 44. Teasel (Dipsacus sylvestris)
- \_\_\_ 45. Velvetgrass (Holcus spp.)
- \_\_\_ 46. Western goldenrod (Solidago occidentallis)
- \_\_\_ 47. Wild blackberry (Rubus laciniatus)
- \_\_\_ 48. Wild carrot (Daucus carota)
- \_\_\_ 49. Wild garlic/wild onion (Allium spp.)
- \_\_\_ 50. Wild geranium (Geranium spp.)
- \_\_\_ 51. Wild mustard (Brassica spp.)
- \_\_\_ 52. Wild oats (Avena fatua)
- \_\_\_ 53. Wild radish (Raphanus raphanistrum)
- \_\_\_ 54. Yellow/green foxtail (Setaria glauca)
- \_\_\_ 55. Yellow nutsedge (Cyperus esculentus)

Score (number correct \_\_\_ x 10) =



## CROPS IDENTIFICATION LIST

Symbols: (s) seed, (p) plant, (e) either plant or seed or both

### A. Grain Crops

1. Hard red winter wheat (s)
2. Soft white wheat (e)
3. Club wheat (p)
4. Six-row barley (e)
5. Two-row barley (p)
6. White oats (s)
7. Gray oats (s)
8. Red oats (s)
9. Rye (e)
10. Field corn (e)
11. Popcorn (e)
12. Sorghum (e)
13. Millet (e)
14. Rice (e)
15. Triticale (e)

### B. Grasses

1. Annual ryegrass (e)
2. Perennial ryegrass (e)
3. Tall fescue (e)
4. Orchardgrass (e)
5. Red fescue (e)
6. Bentgrass (e)
7. Kentucky bluegrass (e)
8. Timothy (e)
9. Meadow foxtail (e)
10. Reed canarygrass (e)
11. Crested wheatgrass(e)
12. Intermediate wheatgrass (e)
13. Sudangrass (e)
14. Smooth bromegrass (e)

### C. Miscellaneous Crops

1. Sugar beets (e)
2. Hops (p)
3. Mint (p)
4. Rape (p)
5. Meadowfoam (e)
6. Cotton (e)
7. Safflower (e)
8. Peanuts (e)

### D. Legumes

1. Alfalfa (e)
2. Red clover (e)
3. White clover (e)
4. Alsike clover (e)
5. Subclover (e)
6. Crimson clover (e)
7. Hairy vetch (e)
8. Common vetch (e)
9. Fieldpeas (e)
10. Birdsfoot trefoil (e)
11. Big trefoil (e)
12. Sweetclover (e)
13. Soybeans (e)
14. Lentils (e)
15. Dry beans (e)
16. Lespedeza (e)

### E. Vegetables

1. Green peas (e)
2. Sweet corn (e)
3. Carrots (e)
4. Green snap beans (e)
5. Cabbage (p)
6. Cauliflower (p)
7. Broccoli (p)
8. Tomatoes (p)
9. Table beets (p)
10. Cucumbers (p)
11. Squash (p)
12. Melons (p)--Cucurbits
13. Cantaloupe (p)
14. Onions (p)
15. Garlic (p)
16. Red potatoes (e)
17. Russet potatoes (e)
18. Round white potatoes (e)
19. Radish (p)
20. Lettuce (p)
21. Turnip (p)
22. Brussel sprouts (p)
23. Rhubarb (p)
24. Peppers (p)

CROP IDENTIFICATION SCORECARD

Contestant No.:

- \_\_\_\_\_ 1. Hard red winter wheat
- \_\_\_\_\_ 2. Soft white wheat
- \_\_\_\_\_ 3. Club wheat
- \_\_\_\_\_ 4. Six-row barley
- \_\_\_\_\_ 5. Two-row barley
- \_\_\_\_\_ 6. White oats
- \_\_\_\_\_ 7. Gray oats
- \_\_\_\_\_ 8. Red oats
- \_\_\_\_\_ 9. Rye
- \_\_\_\_\_ 10. Field corn
- \_\_\_\_\_ 11. Popcorn
- \_\_\_\_\_ 12. Sorghum
- \_\_\_\_\_ 13. Millet
- \_\_\_\_\_ 14. Rice
- \_\_\_\_\_ 15. Annual ryegrass
- \_\_\_\_\_ 16. Perennial ryegrass
- \_\_\_\_\_ 17. Tall fescue
- \_\_\_\_\_ 18. Orchardgrass
- \_\_\_\_\_ 19. Red fescue
- \_\_\_\_\_ 20. Bentgrass
- \_\_\_\_\_ 21. Kentucky bluegrass
- \_\_\_\_\_ 22. Timothy
- \_\_\_\_\_ 23. Meadow fxtail
- \_\_\_\_\_ 24. Reed canarygrass
- \_\_\_\_\_ 25. Crested wheatgrass
- \_\_\_\_\_ 26. Intermediate wheatgrass
- \_\_\_\_\_ 27. Sudangrass
- \_\_\_\_\_ 28. Smooth bromegrass
- \_\_\_\_\_ 29. Sugar beets
- \_\_\_\_\_ 30. Hops
- \_\_\_\_\_ 31. Mint
- \_\_\_\_\_ 32. Rape
- \_\_\_\_\_ 33. Meadowfoam
- \_\_\_\_\_ 34. Cotton
- \_\_\_\_\_ 35. Safflower
- \_\_\_\_\_ 36. Peanuts

- \_\_\_\_\_ 37. Alfalfa
- \_\_\_\_\_ 38. Red clover
- \_\_\_\_\_ 39. White clover
- \_\_\_\_\_ 40. Alsike clover
- \_\_\_\_\_ 41. Subclover
- \_\_\_\_\_ 42. Crimson clover
- \_\_\_\_\_ 43. Hairy vetch
- \_\_\_\_\_ 44. Common vetch
- \_\_\_\_\_ 45. Fieldpeas
- \_\_\_\_\_ 46. Birdsfoot trefoil
- \_\_\_\_\_ 47. Big trefoil
- \_\_\_\_\_ 48. Sweetclover
- \_\_\_\_\_ 49. Soybeans
- \_\_\_\_\_ 50. Lentils
- \_\_\_\_\_ 51. Dry beans
- \_\_\_\_\_ 52. Green peas
- \_\_\_\_\_ 53. Sweet corn
- \_\_\_\_\_ 54. Carrots
- \_\_\_\_\_ 55. Green snap beans
- \_\_\_\_\_ 56. Cabbage
- \_\_\_\_\_ 57. Cauliflower
- \_\_\_\_\_ 58. Broccoli
- \_\_\_\_\_ 59. Tomatoes
- \_\_\_\_\_ 60. Table beets
- \_\_\_\_\_ 61. Cucumbers
- \_\_\_\_\_ 62. Squash
- \_\_\_\_\_ 63. Melons
- \_\_\_\_\_ 64. Cantaloupe
- \_\_\_\_\_ 65. Onions
- \_\_\_\_\_ 66. Garlic
- \_\_\_\_\_ 67. Red potatoes
- \_\_\_\_\_ 68. Russet potatoes
- \_\_\_\_\_ 69. Round white potatoes
- \_\_\_\_\_ 70. Radish
- \_\_\_\_\_ 71. Lettuce

Score (number correct x 10) =

# HAY JUDGING SCORECARD

Contestant Name: \_\_\_\_\_

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Maturity			
Leafiness			
Color			
Foreign Material			
Odor/Condition			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

# HAY JUDGING SCORECARD

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Maturity			
Leafiness			
Color			
Foreign Material			
Odor/Condition			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

**TOTAL SCORE**

Class #1 \_\_\_\_\_

Class #2 \_\_\_\_\_

TOTAL \_\_\_\_\_

# SILAGE JUDGING SCORECARD

Contestant Name: \_\_\_\_\_

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Maturity			
Color			
Odor/Condition			
Moisture			
Chop			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

# SILAGE JUDGING SCORECARD

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Maturity			
Color			
Odor/Condition			
Moisture			
Chop			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

TOTAL SCORE	
Class #1	_____
Class #2	_____
TOTAL	_____

# VEGETABLE JUDGING SCORECARD

Contestant Name: \_\_\_\_\_

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Maturity			
Color			
Odor/Condition			
Moisture			
Chop			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

# VEGETABLE JUDGING SCORECARD

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Maturity			
Color			
Odor/Condition			
Moisture			
Chop			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

TOTAL SCORE	
Class #1	_____
Class #2	_____
TOTAL	_____

# FRUIT/NUT JUDGING SCORECARD

Contestant Name: \_\_\_\_\_

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Soundness			
Other Classes/ Varieties/Crops			
Weeds			
Inert Materials			
Other Objection Factors			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

# FRUIT/NUT JUDGING SCORECARD

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

FACTORS	Desirable	Acceptable	Undesirable
Soundness			
Other Classes/ Varieties/Crops			
Weeds			
Inert Materials			
Other Objection Factors			

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

## TOTAL SCORE

Class #1	_____
Class #2	_____
TOTAL	_____

***INSECT IDENTIFICATION LIST (All specimens  
will be pictures )***

1. Alfalfa Weevil
2. Aphids
3. Armyworm Larva
4. Assassin Bug
5. Bean Leaf Beetle
6. Blister Beetle (larva)
7. Blister Beetle (adult)
8. Chinch Bug
9. Colorado Potato Beetle
10. Corn Earworm Larva
11. Corn Rootworm Larva
12. Cricket
13. Cutworm Larva
14. European Corn Borer Larva
15. Flea Beetle
16. Grain Weevil
17. Grasshopper
18. Green Lacewing
19. Honeybee
20. Japanese Beetle
21. Lady Beetle Larva
22. Leaf Skeletonizer
23. Leafhopper
24. Lygus
25. Mexican Bean Beetle
26. Pink Bollworm Larva
27. Salt Marsh Caterpillar/Woolly Worm
28. Scale
29. Spider Mite
30. Spittlebug
31. Spotted Cucumber/ Southern Corn Rootworm  
Beetle
32. Stinkbug
33. Tobacco/Tomato Hornworm Larva
34. Western Corn Rootworm Beetle
35. Western Flower Thrip
36. White Grub
37. Whitefly
38. Wireworm

*INSECT IDENTIFICATION SCORECARD*

Contestant Number: \_\_\_\_\_

- |                                   |  |
|-----------------------------------|--|
| ___ 1. Alfalfa Weevil             | ___ 21. Lady Beetle Larva                                  |
| ___ 2. Aphids                     | ___ 22. Leaf Skeletonizer                                  |
| ___ 3. Armyworm Larva             | ___ 23. Leafhopper   |
| ___ 4. Assassin Bug               | ___ 24. <u>Lygus</u>                                       |
| ___ 5. Bean Leaf Beetle           | ___ 25. Mexican Bean Beetle                                |
| ___ 6. Blister Beetle (larva)     | ___ 26. Pink Bollworm Larva                                |
| ___ 7. Blister Beetle (adult)     | ___ 27. Salt Marsh Caterpillar/Wooly Worm                  |
| ___ 8. Chinch Bug                 | ___ 28. Scale  |
| ___ 9. Colorado Potato Beetle     | ___ 29. Spider Mite  |
| ___ 10. Corn Earworm Larva        | ___ 30. Spittlebug   |
| ___ 11. Corn Rootworm Larva       | ___ 31. Spotted Cucumber/ Southern Corn<br>Rootworm Beetle |
| ___ 12. Cricket                   | ___ 32. Stinkbug   |
| ___ 13. Cutworm Larva             | ___ 33. Tobacco/Tomato Hornworm Larva                      |
| ___ 14. European Corn Borer Larva | ___ 34. Western Corn Rootworm Beetle                       |
| ___ 15. Flea Beetle               | ___ 35. Western Flower Thrip                               |
| ___ 16. Grain Weevil              | ___ 36. White Grub   |
| ___ 17. Grasshopper               | ___ 37. Whitefly   |
| ___ 18. Green Lacewing            | ___ 38. Wireworm   |
| ___ 19. Honeybee                  |  |
| ___ 20. Japanese Beetle           |  |

Score (number correct \_\_\_ x 10) =



**GRAIN JUDGING SCORECARD**

**Contestant Name:** \_\_\_\_\_

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

<b>FACTORS</b>	<b>Desirable</b>	<b>Acceptable</b>	<b>Undesirable</b>
Soundness			
Other Classes/ Varieties/Crops			
Weeds			
Inert Materials			
Other Objection Factors			

**GRAIN JUDGING SCORECARD**

Class #	_____
Class Placing	_____
Factor Score	_____
TOTAL	_____

- 1-2-3-4
- 1-2-4-3
- 1-3-2-4
- 1-3-4-2
- 1-4-2-3
- 1-4-3-2
- 2-1-3-4
- 2-1-4-3
- 2-3-1-4
- 2-3-4-1
- 2-4-1-3
- 2-4-3-1
- 3-1-2-4
- 3-1-4-2
- 3-2-1-4
- 3-2-4-1
- 3-4-1-2
- 3-4-2-1
- 4-1-2-3
- 4-1-3-2
- 4-2-1-3
- 4-2-3-1
- 4-3-1-2
- 4-3-2-1

Specimen Evaluation: Mark each factor once according to appropriate degree of desirability.

<b>FACTORS</b>	<b>Desirable</b>	<b>Acceptable</b>	<b>Undesirable</b>
Soundness			
Other Classes/ Varieties/Crops			
Weeds			
Inert Materials			
Other Objection Factors			

<b>TOTAL SCORE</b>
Class #1 _____
Class #2 _____
TOTAL _____

## RESOURCE MATERIAL LIST

- Weeds:** Gilkey's Weeds of the Pacific Northwest  
LeRea J. Dennis, 1980 copy  
OSU Bookstore
- Growers Weed I.D. Handbook, Publication 4030  
Coop Extension Mailroom  
1422 Harbor Way South  
Richmond, CA 94804
- Transparencies Masters for Crop and Weed I.D.  
U.S. Department of Health, Education and Welfare  
Office of Education, Bureau of Research
- Hay:** Extension Circulars  
#942 - What to look for in evaluating hay  
#943 - What it is and why it is important
- Pacific Northwest Extension Publication #223  
Alfalfa Hay, Quality and Testing
- Potatoes:** U.S. Standards for Grades of Potatoes  
U.S. Department of Agriculture  
Consumer and Marketing Service
- Fruit and Nut:** Extension Service Material
- Silage and Hay:** Forage Production and Management  
Extension Service Publication